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PLANT IND.

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

JUN 5 1926

REPORT FOR WEEK ENDING JUNE 5, 1926

HAVRE:

Weather conditions during the last week continued to be unfavorable. A heavy wind from the southwest on the 4th caused damage to practically all crops. Grains that are well advanced and on fallow show the least injury Grains that are small and on spring or fall plowing are not progressing.

On the 4th, with a heavy wind, practically all corn rolled, most of which is just through the ground. Alfalfa and domestic grasses suffered very severely and most of them were harvested during the week. Sweet clover and winter rye were also harvested for hay. With the excellent stands obtained on sweet clover some of the best plats will probably make a ton of hay. Winter rye is also better than usual. Spring rye is again showing up unusually well. This crop made good early growth and is now nearing the boot stage.

General agricultural conditions in this immediate section and through to the west are just as severe now as they were at this time in 1919.

Irrigated alfalfa has made unusually heavy growth and the first cutting will be made early next week.

Maximum temperature 92, minimum 41; precipitation 0.

ARDMORE:

Precipitation was recorded on 19 days during the month of May with a total rainfall of only 2.53 inches. This is about one inch below the 14-year average for this station.

Unusually warm winds for this season have been blowing for the past two or three days. Small grain is growing nicely, but alfalfa is burning badly. This crop will be very short. Much of the alfalfa will have to be cut within a week or ten days unless there are good rains. Native grass is turning brown very rapidly. Pastures are badly in need of rain.

A good stand of corn has been secured on the station. Considerable damage has been done in this section by the corn wire worm. Whole fields have been destroyed before the corn germinated.

Maximum temperature 83, minimum 38; precipitation .21 inch.

ARCHER:

The entire week has been very favorable for field work. All seeding has been completed. During the week 51 acres of corn and the same acreage of millet have been seeded. This makes a total of 68 acres of hay crops and 75 acres of corn for silage and grain. In addition to this 17 acres of sunflowers have been seeded. Crop prospects have been greatly increased by the 1.80 inches precipitation last week. If an average crop can be secured from this acreage the cost of the dairy feed will be limited to the purchase of cotton seed meal.

The winter wheat is in boot with prospects of a very good crop. Cereals seeded this spring are making a very rapid growth. Alfalfa is doing exceptionally well. The native grasses are furnishing excellent pasture.
Maximum temperature 78, minimum 41; precipitation .24 inch.

JUDITH BASIN:

Strong, hot, dry winds have prevailed throughout the week, and the weather has been unusually warm most of the time for this season of the year. The evaporation has been abnormally high, and no rain has been received. Only a trace of precipitation has occurred since May 24, and some crops are suffering from lack of moisture. Alfalfa has been burned beyond recovery and the crop of hay will be very light. Crested wheat grass and bromegrass are also commencing to burn, but none of the grain crops show signs of suffering from lack of moisture. Most of the young pine trees set out this spring have apparently died, but many of the spruce are still green and are showing signs of growth.

Plowing of all summer fallow land on the station has been completed, and other field work has been devoted chiefly to cultivating, mowing, and hoeing weeds. All plats on the station have been trimmed and all roads and alleys cultivated. Alfalfa on the rotations has been harvested.
Maximum temperature 88, minimum 32; precipitation 0.

HUNTLEY:

The past week has been hot and dry as a result of which most crops are burning seriously. Farmers having winter wheat report that crop to be injured beyond recovery. Spring-sown small grains on fallow are still in good condition, but soil samples indicate that there is very little reserve moisture left in these plats.

Huntley, continued:

Plowing for fallow will be completed today, the 5th. Every plat except the fallow in the M. C. corn series has plowed up very dry and cloddy. Fall-plowed fallow plats and roads were duckfooted during the week, and all alleys were cultivated and hoed. Corn and sunflowers were cultivated for the first time this season also.

SHERIDAN:

Warmer weather prevailed over the most of the week, with only a light sprinkle of rain. Most crops have been making a good growth, but Russian thistles also are growing fast on many of the plats where the grain emerged unevenly because of the dry surface at seeding time. Winter wheat began to head early in the week, nearly two weeks earlier than last year. The appearance of this crop is good, however. Alfalfa is also beginning to blossom. This crop in the solid seedings, where at all thick, is wilting badly, and the growth is short. Older seedings of gromegrass are headed and made a fair growth, while last year's seedings have made but little growth at all.

Soil samples taken last week showed the plats cropped last year in the MC wheat series to be moist only to a depth of about two feet.

Sorgo, Sudan grass, and beans were seeded early in the week. The one plat of sweet clover in Rotation 135 was cut for hay today. Corn in the rotation field and varieties is being cultivated. This crop has made a good start ahead of the weeds this year.

Maximum temperature 82, minimum 36; precipitation .05 inch.

DICKINSON:

The weather of the week was cool and windy with only a couple of light showers. Grains made good growth and conditions now are very promising.

All corn was harrowed during the week, most of it for the second time. Stands of corn are generally good. Some damage is being done by cutworms, but it is not certain that this will prove serious.

Fallow plats on the rotations were plowed on June 4 and 5. A thick growth of Russian thistle about four inches high covered these plats.

Dickinson, continued:

Root crops were weeded and thinned. These crops all have excellent stands this year. Trimming of the rotation plats was completed and the stakes were put out.

Millet varieties, sorgo and Sudan grass were seeded. New seedings were also made of the perennial grasses.

Mr. C. N. Ainslie, of the Bureau of Entomology, with headquarters at Sioux City, Iowa, and Mr. Ralph W. May were among the visitors during the week.

Maximum temperature 84, minimum 35; precipitation .15 inch.

MANDAN:

Agronomy

The past week has been dry and cool. All crops are beginning to suffer because of lack of moisture. Weeds are ahead of the small grain in a number of plats, especially those on the poorer methods of treatment.

Alfalfa, crested wheat grass, and bromegrass, on the higher land will make a very light crop, which is nearly ready to cut. Alfalfa along the coulee will make a fair crop for the first cutting.

Fallow plats were plowed and harrowed during the week. Sweet clover and winter rye were turned under for green manure at the same time. Sweet clover was ready to turn under, while winter rye was fully headed and starting to dry up. Plowing also started on 15 acres in field P, which will be fallow this year.

A second seeding of alfalfa and sweet clover was made for the Office of Forage Crop Investigations during the week. Yellow sweet clover in the Forage Crop rotations was cut for hay. Precipitation for May amounted to 2.41 inches, making a total for the year 3.51 inches. This leaves a shortage to June 1 of 2.41 inches.

Cooperative Grazing Experiment

The pastures that are heavily grazed are very short, and the cattle on them have a hard time to find enough to eat. The bromegrass pasture seems to be in good condition for grazing at present, and it may be able to carry the cattle at the rate it is being grazed. The 30-acre pasture is very short. The five acres of yellow sweet clover has a good stand and a fair growth. It started to bloom early in the week. The stand of white sweet clover is very thin.

Mandan, continued:

The cattle were weighed at the end of May. They all showed fair gains. The lighter gain of the 30-acre steers no doubt was because of short pasture. Contrary to all information, the sweet clover steers showed a gain from the start. The following table shows the gains per head in the different pastures for the last half of May.

Pasture	Acres Per head	15 day's gain per head
100 acres	10	55.5
70 acres	7	32.0
50 acres	5	36.5
30 acres	3	23.0
Rotation, 70 acres	4.4	39.1
Bromegrass, 25 acres	4.17	37.5
Sweet clover, 10 acres	20	18.0
Reserve, 70 acres	9.3	34.0

The dam in the reserve pasture has gone dry, and it is now necessary to drive the reserve steers to the sheds for water.

Plants are under way by the Agricultural College and the County Agent to hold a field day at the pasture on June 23.

A beef-cattle special train, showing market grades of beef cattle and purebred breeding stock, was in Mandan on May 30.

Horticulture

The orchards are now receiving the second spraying of the year. A combination spray of arsenate of lead, lime-sulphur, and nicotine sulphate is being used.

Softwood cuttings of currants, gooseberries, juneberries, buffaloberries, and golden currants have been planted.

Suckers were removed from budded trees in the nursery, and the plants tied to stakes. For the most part, good stands have been obtained from last year's budding. Grafts are also showing good stands.

The final planting of vegetables in the acre garden were made during the week. Hoeing and cultivating has been in progress. The weather is very dry, and growth of the various vegetable crops is almost at a standstill. Asparagus is still yielding good, but the season is nearing its end as is evidenced by smaller stalks.

Mandan, continued:

The Van Houtte spirea and Red Osier are still in good condition in northern exposures on the grounds, and Villosa and Josekea lilacs in their prime, with wild roses, mock orange and peonies, just commencing to bloom.

Arboriculture

Samples of tree seed of Ulmus pumila, Ulmus macrocarpa, and Caragana arborescens, sent by Mr. P. F. Dorsett from near Harbin, Manchuria, China, were planted in seed beds on June 4.

Superintendent Campbell, of Browning, Montana, District Supervisor for the Indian Service in North and South Dakota, Montana and Wyoming; Superintendent Mossmain, Indian Agency, Fort Yates; Dr. Walster, North Dakota Agricultural College; and Mr. R. W. May, Experiment Station, Moccasin, Montana, were among the station visitors of the week.

AKRON: Week ending May 29.

Work progressed favorably during the week. About a half-acre of Akron White corn was increased on fallow. The Cereal Project corn ground was duck-footed early in the week. The Corn Variety Project was seeded during the week, this work having been interrupted for a day by the rain which fell during the last part of the week. Ten acres of perennial grass mixture were seeded on sod land across the railroad. The Forage Variety ground was duck-footed. Some progress was made with plat trimming.

Winter wheat, where not completely blown out, has come out wonderfully. Good average yields could yet be received if June rainfall should be ample and well distributed. The spring grains, especially the oats, show two dates of emergence. About 80% of the stand is from the first or early emergence and about 20% from the emergence since the May rains. Spring sown grains are relatively free from weeds in contrast to last season when the plats were all very weedy. Rye is in full head.

Maximum temperature 94, minimum 59; precipitation 1.04 inches.

AKRON:

By this week end winter wheat has commenced to burn, the lower leaves of the wheat on all soil preparations turning brown. Apparently there is no appreciable reserve even on fallow. Weeds have made a marked growth and at present the station is in an unkempt condition. Another week should show vast improvement along this line.

Akron, continued:

Corn on the rotation plats is still emerging. About a 70% stand was secured after seeding. Another percentage is emerging since the rain of last week. It appears that satisfactory stands will be secured on the Rotation and Sheep Rotation plats. There has been some damage from squirrels and from cut worms. The variety corn is just emerging this week-end and it is too early to estimate the stands. Soil has baked and is very tight over the variety corn in the listed furrows. All of the fallow and open ground had to be cultivated, the work being finished today, June 5. The forage variety experiment was seeded during the week as well as the kafir and sorgo plats on the rotation block. It became necessary to turn the sheep off the rye field early in the week. Lot No. 2 was turned onto the fallow field today. There is no pasture on the pastured ten acres of native sod except the Slender Fescue. It has been decided to delay turning on to this field for about another week.

The perennial forage experiment seeded some weeks past is emerging but no estimate of stands can yet be made. The ground is becoming foul with thistles. Sweet clover and alfalfa on the rotation plats has emerged to dense stands. The bromegrass has emerged to only partial stands, with none appearing among the wheat.

NORTH PLATTE:

Weather conditions remain essentially the same. Showers totaling .31 inch and lower temperatures checked the drying up of crops somewhat but failed to furnish any permanent relief. Most of the small grain is burned beyond recovery.

Winter wheat on fallow is heading at a height of about 18 inches. On continuously cropped land only a small percentage of winter wheat or spring grain will be able to produce heads.

Cut worms are causing considerable damage throughout the vicinity. On the station where fields were kept free from weeds before planting, not much damage has been done.

Rainfall for the year to the end of May reported by the North Platte Weather Bureau totaled 2.35 inches, in comparison with a normal of 7.05 inches. The total deficit since January, 1925 is 11.98 inches.

COLBY:

The week just ending failed to bring any moisture to the station. A few showers passed to the south and to the north, but they were small in amount and did not cover a very large area. There was a low wind movement the last half of the week which helped the wheat by keeping down evaporation Thursday was the coolest day of the week, the maximum temperature being 66 degrees on that day. The temperature again reached 93 today, which is within one degree of as hot as we have had.

Colby, continued:

The poorer wheat is looking poorer and the better wheat on fallow is beginning to fire quite badly. All wheat is spotted. Droughty spots have shown for some time on all of the wheat. Oats and barley, except on fallow, could very easily be recorded as complete failures at this time. They have dried and burned until they would not even make hay. Spring wheat is but little better on the project. In the variety planting of spring wheat and oats, the spring wheat has burned practically completely up, while the oats is but little better. Barley varieties are very badly burned, and they may not make a crop except on a favored part of the replication.

Corn on some of the plats shows the effect of the dry weather even though it is only 3 to 4 inches high. This is also true of two of the corn variety replications. The D. L. A. sorghums were planted on the 2nd of June and the variety project was planted on the 5th. It is believed and hoped that there is moisture enough in the soil to bring the sorghums up to a stand. A rain would help them as well as the corn.

Winter wheat has the kernel just fully formed at the present time. For the most part the barley, oats, and spring wheat were caught by the dry weather before they had a chance to head.

The surface-planted corn plats were cultivated during the week. Other work consisted of listing ground for sorghums on the D. L. A. project and for varieties, disking fields, and general weed killing around the orchard.

HAYS:

The continued dry weather is ripening the wheat prematurely. There is so little water left in the soil the wheat must have some rain or continued cool weather from now to harvest if it fills so as to make fair quality. However, it is hanging on wonderfully well, and there is still a chance for some 20-bushel wheat, although there will likely be a much larger acreage of 10-bushel wheat.

Spring small grains are now burning badly. These crops did not commence suffering as soon as the winter wheat but now are commencing to suffer very much from drought.

Kafir and other row crops are not coming with very good stand. The soil is too dry, and what is up is not making good growth.

Hays, continued:

In addition to the discouraging conditions due to drought, chinch bugs are beginning to appear quite numerous in the barley and some in the wheat. These are too late to damage the small grains very much, but with continued dry weather may cause some damage to row crops. The wheat shows some fly damage. Grasshoppers are just beginning to appear in small numbers. The alfalfa fields are quite heavily infested with worms of various kinds. Varriated cutworms and army worms are most numerous. The cutworms are sufficiently thick to cause considerable damage to the next crop of alfalfa, according to Mr. McColloch, Entomologist of the Kansas State Agricultural College, who visited the station today.

Work during the past week has consisted largely in weed killing by cultivation, thinning of sorghum crops, soil sampling, and getting ready for harvest which is being hastened rapidly by the dry weather.

Maximum teperature 96, minimum 49; precipitation .22 inch.

GARDEN CITY:

Several attempts at rain have failed during the past week. A shower which netted .33 of an inch of moisture was received Thursday afternoon. Winter wheat and the spring small grains seem to be holding their own fairly well considering the droughty conditions that have prevailed all spring.

Planting was completed yesterday morning. There is enough moisture in the surface soil to cause good germination, and sorghums planted a week ago are beginning to emerge. Sorghums planted in the May 15 date are making a rapid growth and will be large enough to thin within a few days.

Professors H. H. Laude and A. J. Schoth, of the main station, were visitors Friday, June 4.

Maximum temperature 87, minimum 49; precipitation .33 inch.

DALHART:

After just a few days of fair and rather warm weather more rain was recorded. For several days early in the week the sky would become cloudy and threatening but would blow over. On Thursday night, however, a hard rain was recorded which had short duration. This rain put an end to field work for the remainder of the week.

A great deal of work was accomplished during the drier part of the week. Monday morning was a little too wet for work in the cultivated fields but was quite suitable for turning barley under for green manure in the vineyard. In the afternoon the fields were suitable for working.

Dalhart, continued:

The final preparation was made for the Smut Experiment plat, getting it in readiness for planting on the 2nd. The third date of planting of grain and forage sorghums and cotton was made on June 1, as well as all the varieties of grain and forage sorghums. On June 2 Dr. Ranker came out and the smut experiment was planted. This was started quite early in the morning so as to enable Mr. Ranker to catch the noon train out for St. Louis. In all, 82 varieties were planted, which were previously treated with smut.

It is a little too early to determine whether it will be necessary to do any replanting. The plantings made prior to this week are up to a good stand and a great deal of it already thinned. All the kafir on the D. L. A. rotations was thinned this week. Soil samples were taken Thursday afternoon. The samples of last week had to be omitted on account of rain.

Considerable replanting will be necessary by farmers in this section on account of the rains washing soil down into the lister furrows and covering the young crop. A good stand was secured and the crop was growing off in good shape when the dirt washed in.

Prospects for a wheat crop are excellent just now. There have been a few fields destroyed by hail but most of the wheat is looking unusually good. If nothing happens to the wheat on the station to destroy it, this will be about the banner year for yield. Rye is also showing up in good shape. The oats are heading and making good progress.

Maximum temperature 87, minimum 52; precipitation .73 inch.

TUCUMCARI:

Favorable weather the past week has permitted field work to be performed to very good advantage, unlike the previous weeks, when rain kept teams from the field a good share of the time. The beating downpour of 2.24 inches on May 26 necessitated replanting a good share of listed increase and this work is now progressing. Cowpeas were all replanted, since a small amount of hail, some soil blowing, and washing rains had left less than one-half a stand, with most plants cut and sand whipped.

During the week the entire north plat field was spring-tooth harrowed and planted; the east series of the center field disked, harrowed, and planted; the June 1 date plats were planted, as were the single rows of cotton and sorghums. The vineyard and tree rows were cultivated and hoed.

There still remains about 35 acres of increase to be planted or replanted, but since most of this will be listed or drilled it can be done rapidly.

Tucumcari, continued:

Ranges are in unusually good condition and where soil washing was not extensive the early planted row crops have emerged to very good stands. However, the majority of fields planted previous to May 20 were replanted, since very few escaped serious damage from the heavy rainfall.

Wheat promises a heavy crop over the county, although many fields have been damaged to a varying extent by hail. Estimates of loss run from 5 per cent to 25 per cent, but it is very probable the mutual company, owned and operated by farmers, can handle the loss, the officials say. This would indicate they expect the average damage to run 10 per cent less. Fields which have not been injured will average, no doubt, about 20 bushels, ranging from 10 to 35 bushels.

Maximum temperature 88, minimum 56; precipitation .28 inch.
Evaporation, 1.619 inches. Average hourly wind velocity, 3.3 miles.

BIG SPRING:

Weather conditions this week have been very favorable for crop and weed growth. A rain of 1.58 inches fell on the night of May 29. This rain fell so hard that it packed the ground so much that it was necessary to scratch a good many plats in order to obtain stands. At present all plats with the exception of cowpeas are up to good stands.

The June 1 date of seeding was made on time, and the drilled plats of millet, kafir and Sudan grass in the forage sorghum varieties were planted this week.

Other work this week has consisted mainly of knifing the rotations and the increase fields and in thinning the first and second dates of planting of sorghums and cotton. The remainder of the wheat plats were also harvested this week.

Mr. Jones, of the Texas Experiment Station, is here at present assisting in working up the report of the feeding tests for the Feeders' Day meeting, June 8.

Maximum temperature 96, minimum 54; precipitation 1.58 inches.

LAWTON:

Three showers amounting to .55 inch fell during the week. Cool, cloudy weather followed the rain of .45 inch on June 2, and ripening of small grains was temporarily checked.

Lawton, continued:

All row crops on the station were cultivated during the week and some thinning on the earlier planted sorghums was completed. Two plats of oats were cut June 2 and the barley harvest was also completed on that date. Thirty plats of wheat and oats were cut June 5 and the remaining harvest will be pushed to completion as rapidly as possible.

Small grains have ripened normally, the growth of straw is heavy, and the yields should be very satisfactory.

Corn and sorghums are making satisfactory growth but freshly cut alfalfa would be greatly benefited by rain.

The total precipitation for May amounted to 3.79 inches, which is 1.37 inches below normal. The maximum temperature for the week was 96.

WOODWARD:

The past week has been rather variable. The fore part of the week was hot and dry, the latter part cool and wet. We have received two good rains, the first over half an inch and the second over an inch.

Wheat is beginning to turn, and is ripening rapidly. All plats will probably be ready to bind by the middle of the week. According to newspaper reports, harvest has already been started in southern Oklahoma. Corn and cotton are growing rapidly.

The April 20 and May 1 dates of cotton were thinned during the week. The May 10 planting is now ready to thin and has almost caught up with the first two dates in growth. The April 20 dato of cotton was thinned to 24 inches because of the poor stand of the Acala and Oklahoma Triumph No. 44. The Westex gave a much better stand at this early date.

The first cherries of the season, two trees of Early Richmond, have been picked. Other work has consisted of disking and plowing rye and winter barley fields which have been pastured down, some grading around dairy buildings, hoeing out tree rows, some painting and considerable repairing of machinery. Work is going forward on floor and fixtures in the dairy barn which was built last fall. Some grass roots have been planted.

Woodward, continued:

A check was made on persimmon grafts which have been put in the last four years, in a grove near the station. Live grafts were counted on 86 trees, ranging from four years old to grafts inserted this spring. Of these, the following are blooming this season:

2	Josephene
1	Hicks
3	Earliest of All
3	Early Golden
2	Silkyfine
1	Foster
14	Staminate (native)

Planting which has been delayed, because of waiting for rain, will be rushed as soon as it is dry enough to work the ground.

Maximum temperature 94, minimum 56; precipitation 1.77 inches. Evaporation 1.739 inches. Average hourly wind velocity 5.0 miles.

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WEEKLY STATION REPORTS

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DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

JUN 12 1926

REPORT FOR WEEK ENDING JUNE 12, 1926.

HAVRE:

The past week at this station has continued unfavorable for crop and range conditions. The maximum temperature for the week was 92, but the average maximum was only 79. The minimum temperature for the week was 44 and the average was 50, which is slightly low for this season of the year. Clear skies have been the rule with wind velocities rather high for this season. A shower of .01 inch was recorded on the evening of the 10th. This is the first rainfall recorded on the station so far this month.

Winter rye is filling and winter wheat on fallow is progressing very well, considering the dry conditions. Spring wheat is making very poor growth except on fallow. Corn is very slow in germinating and even the early seeding is making very slow growth. Domestic grasses, sweet clover. and alfalfa were weighed up during the week, showing light yields. The best of the yellow flowered sweet clover seeded in three foot rows making around one ton to the acre. Irrigated alfalfa was cut during the week and is from a week to 10 days further along than usual.

In company with the County Agent of Hill County, Mr. E. B. Duncan, Mr. John Paugh, County Agent of Choteau County, and Mr. Louis Vinke, of the Montana Experiment Station, a trip was made to the Swift Current Experiment Farm at Swift Current Saskatchewan. This station is about 80 miles east of here and approximately 150 miles north of the boundary. The section of Canada in the vicinity of Swift Current is largely straight spring wheat. Crop conditions noted on the trip varied a great deal. East of the north and south line, about 50 miles east of the station, crop conditions are normal or better. This line would pass through Climax, Shaunavon, and Gull Lake in Saskatchewan. In this territory snow was light during the winter and spring precipitation light, but during May it has been about normal and crops are well advanced. West of this line as far as the Alberta-Saskatchewan boundary line there are only small areas that have been favored by local showers and crop condititions are generally lower. This, however, is generally a dry territory and a large area of the crop land is in winter rye, which has made fairly good growth and prospects are for a good crop. It will at least make a good yield of feed. In the Cypress Hills, which run about forty miles north of the boundary, drought is especially noticeable, as the elevation gives this section normally more rainfall than on the plains. It is largely a stock country. The grass, however, is suffering now and range conditions are much below what they usually are.

JUDITH BASIN:

High temperatures and strong winds continued to prevail during the fore part of the week, but cool, cloudy weather the past two days has afforded some relief to crops, and indications at present are very promising for a good rain.

Judith Basin, continued:

The hot, dry weather has burned all winter wheat quite extensively. Much of the winter wheat has not yet headed, and a fair crop is the best that can be expected under the most ideal conditions during the remainder of the season. Early seeded spring grains have also fired badly, but crops seeded after May 1 appear to have escaped practically uninjured. Alfalfa has been burned beyond recovery, and about 55 acres of alfalfa on the station have been cut and shocked.

Maximum temperature 87, minimum 37; precipitation, Trace.

HUNTLEY:

All crops suffered from warm weather and hot winds early in the week but have recovered somewhat during the last day or two which have been cloudy, and during which time two showers were received. One rain occurring on the 11th is the most precipitation we have had at one time since May 10. While this shower was somewhat torrential in character, not enough water fell to cause any runoff. Grass, alfalfa and sorgo seedlings were beaten into the ground to some extent but with continued cloudy weather they ought to revive before the soil bakes over them.

The cleaning of roads and alleys was completed during the week. Beans and other narrow-spaced row crops were cultivated for the first time this season. Fifteen spring pigs were turned into the winter rye-oats plat of the pasture rotation June 9. The crop stands about 6 inches high. Fall pigs on the perennial pastures continued to make good gains during the past two-week period although the forage is getting dry.

Maximum temperature 94, minimum 46; precipitation .40 inch.

SHERIDAN:

The first of the week was quite warm with heavy drying winds. The last few days have been cooler and cloudy with light showers, but without sufficient precipitation to be of any benefit. Crops are showing the effects of the drying weather considerably. Oats, especially, fired quite badly, and are heading short. Many plats, especially on fall plowing, apparently will be almost a total failure unless conditions improve considerably. On all fall and spring plowing the grains emerging later appear to be in better condition than that emerging early in the spring. Corn has been growing rapidly, and late seeded crops emerged during the week.

Sheridan, continued:

Alfalfa on the plats and a part of the miscellaneous fields was mowed during the week. Solid seedings in most of the plats fired quite badly before being cut, and the growth was short. Alfalfa on the south slope on the north side of the station, on what has always been considered the poorest ground, made the best growth and fired the least, although the stand was about as thick as on the other plats.

Summer fallowing was begun the first of the week. All plats in the rotation field to be fallowed were plowed and packed, including the rye and sweet clover green manure plats. Plowing is now in progress in the fields intended for Cereal Investigation work next year.

Maximum temperature 89, minimum 45; precipitation .10 inch.

DICKINSON:

During the early part of the week the weather was dry and windy so that crops began to show the need of water. Most of the grasses and grains wilted badly on the 9th when there was a high wind all day with much dirt blowing. A rain of .52 inch on the 11th and more on the morning of the 12th has improved the outlook. With the present weedy condition of many grain fields a good deal of rain will be required to make more than an average crop.

The hay crop will be light in this locality. Alfalfa and sweet clover are in bloom with a short growth. Annual hay crops have good stands.

All corn was cultivated during the week. Stands are good and the crop is clean and making a good growth.

The trees were cultivated and the work of weeding continued in the fields.

A shipment of Kota wheat, and small lots of several other varieties, was sent to the Minister of Agriculture, Buenos Aires, Argentine Republic.

Superintendent U. J. Downey, of the Hettinger Station, visited here on June 6.

Maximum temperature 90, minimum 41; precipitation .66 inch.

MANDAN:

Agronomy

The past week has been dry and windy. The wind blew hard over three days. While the week was fairly favorable for field work, it was hard on crops.

Mandan, continued:

Small grains are in a serious condition. Some fields are reported to be burned brown. The poorer methods on the station are nearly gone. Good rains would no doubt bring the better methods through for fair crops.

Corn was given the first cultivation during the week. Alfalfa has been cut in the variety tests for the Office of Forage Crop Investigations. Some alfalfa and bromegrass has been cut in the feed fields. The crops will be very light on the higher ground.

Maximum temperature 90, minimum 40; precipitation .11 inch.

Cooperative Grazing Experiment

Very little growth is taking place on the native vegetation. The 30-acre pasture is short and the cattle may have to be taken off soon. The cattle will no doubt have to be moved to another division in the rotation pasture within a few days.

Horticulture

The horticultural nursery was irrigated on the 8th and 9th. Seedlings to be budded this year were given a thorough soaking so as to induce them to grow to a suitable size for August budding. Owing to the dry weather, it has been necessary to water part of the trees planted this spring for the second time.

The second spraying of the season has been finished. Other work during the week included thinning fruit, tieing up budded trees in the nursery, cultivating, plowing for summer fallow, and hoeing weeds.

Cultivation, weeding and thinning of all vegetable crops, have been in progress during the early part of the week. Hedges in the field test of ornamentals were sheared, and some general pruning attended to. In order to save the bluegrass lawns, the grass of which has turned brown and brittle, irrigation has again had to be resorted to, and has been in progress for the last two days.

Trees, shrubbery and perennials on the grounds are withstanding the drought quite well up to the present time. The Emodi, Josikea and Villosa lilacs, Snowball and Highbush cranberries have been in full bloom for nearly two weeks, while the various Philadelphus sp. and peonies in assorted varieties and colors are at their very best at the present time, the latter especially making a great display of bloom in severay beds and borders about the grounds.

Mandan, continued:

The following conifer seedbeds have been planted during the past week. Colorado blue spruce 4; Norway spruce 2; Scotch pine 2; Jack pine 2 Western yellow pine 1; Norway pine 1.

Owing to the extreme dry conditions, the tree seed planted this spring has made very little growth, and as a result it has been necessary to hand hoe the tree rows instead of using the usual cultivator. All the one year old seedlings have been cultivated, and also the conifer nursery.

Caragana seedlings and hedges have all been sprayed with arsenate of lead, allbeing badly infested with blister beetle.

BELLE FOURCHE:

The past week was the best growing week of the season. The temperature was high enough to promote rapid growth, though there were no very hot days. Rye is now headed, barley is commencing to head, and some of the oats is in the boot. Both winter and spring wheat are jointing but will not head for some time. All plats contained enough moisture so that there was no drought injury during the week. Soil samples taken during the week showed that the soil on the continuously cropped wheat plats is moist to a depth of about 18 inches.

Field work during the week consisted largely of marking roads and cleaning up roads and alleys. The corn plats were given their first cultivation on June 2.

Maximum temperature 84, minimum 40; precipitation .02 inch.
The total precipitation for May was 4.60 inches.

ARDMORE.

The excessively hot and dry weather has continued throughout the week. Showers were recorded four days during the week, but the total precipitation was of little consequence. The total of April and May were unusually dry, and taken altogether crops never were so badly in need of rain at this time of the year, in the history of this station, as they are today.

The superintendent of the station made an extensive trip in the eastern part of the state during the week. Moisture conditions east of the Missouri River are even worse than they are in the section of the Great Plains. In the vicinity of Clark, Watertown, Aberdeen and Redfield it is so dry that the farmers generally have given up hopes of producing any spring grain. At Yankton and in southeastern South Dakota it is the driest it has been since 1884 by Weather Bureau records.

Ardmore, continued:

On this station barley is beginning to head. It is very short. Corn is up and has been drag-harrowed twice and cultivated with the cultivator once. Alfalfa has quit making any growth whatever and will b cut next week.

Maximum temperature 95, minimum 48; precipitation .12 inch.

ARCHER:

During the week the weather has been dry with considerable cloudi ness in the afternoons. To this date the soil moisture has been sufficien to prevent serious crop damage. The greatest danger of damage is to winter wheat which is heading. A good rain would be of great benefit to this crop. Perennial plants and native grasses would also be greatly benefited.

Work at the station has consisted of plowing fallow plats, cultivating and weeding of trees, edging the plats and the installation of a milking machine. The two latter items have not been completed.

County Agent Leroy D. Willey, of Sidney, Nebraska, visited the station June 11. He was accompanied by farmers from his locality.

Maximum temperature 83, minimum 44; precipitation .18 inch.

AKRON:

The G. M. rye and the fallow plats were plowed early in the week. The rye stood uniformly 36 inches high, but was thin on the ground, very little stooling having occurred. These plats were immediately packed.

The variety listed corn was cultivated. The remainder of the rotation plats were trimmed and the roadways cultivated with the duckfoot cultivator. Silage corn was seeded on the Cereal Project in preparation for small grain varieties another year. The sorgo and sorghum nursery was seeded today. The orchards and the nursery were weeded. Progress was made in cleaning up the weeds at other places about the farm.

Winter wheat is trying to head but is burning badly. Already more straw has been produced than was produced last year. Ample rains will have to come soon to produce even an average crop of grain. Barley is heading but is thin on the ground. Oats is commencing to head. Barley and oats are both very short. The sorgos and sorghums in the variety experiment are emerging. Satisfactory stands of corn have been secured.

Maximum temperature 97, minimum 54; precipitation 0.

NORTH PLATTE:

The weather continues dry and hot. Two light showers fell during the week, .32 of an inch on Wednesday and .04 on Thursday. Maximum temperature for the week was 96 degrees, Friday p.m.

Corn plats on the Dry Land project were harrowed and the field peas and rye for green manure were plowed under. Summer tilled plats were duckfooted. Alleys and roadways in the fields were cultivated.

All spring grains are suffering very seriously for moisture. Some plats are practically dead now. Corn is not as far advanced as usual but as yet has not been seriously affected by the moisture shortage.

HAYS:

Temperature has ranged from 55 to 101, running high a good portion of the time, having reached 101 twice during the week. Precipitation consisted of two rains, one of .21 inch and another .05 inch.

Luckily the showers were followed by lower temperatures until the moisture had disappeared so the wheat was not scalded, but even at that, maturity was hastened.

All small grains except spring wheat have ripened rapidly during the week. Several plats of oats and barley are ready for harvest and 50 per cent to 75 per cent of the wheat plats will be ready for harvest by Monday, the 14th.

All sorghums are making very slow growth. Corn is doing a little better except for the plats that required replanting. All spring plowed plats were replanted and are now up with a poor to fair stand about five inches high.

Canadian field peas which were turned under, today, June 12, were burned by drought and heat until they could make no more growth. They had reached the height of about 12 inches, but were thin, having made no spreading growth, so furnished a very light green manure crop. The ground turned very dry and lumpy.

Everything in the way of insect pests are "looking in" on the prospects for a good feed on the project. However, thus far no damage has been done. Jackrabbits are more numerous than usual. They have been cutting a little of the corn so it may be necessary to make use of the fence before the season is over. While there have always been rabbits around, but little damage has been done since 1911 and 1913 on the project by rabbits.

GARDEN CITY:

Two showers totaling .81 inch of moisture were recorded during the week. The most of the rain fell rapidly but little of it was lost through runoff.

Row crops have emerged to a good stand on nearly all plats and are making a very satisfactory growth. The first date of planting sorghums was thinned early in the week. Thinning of all sorghums and corn will probably be started during the coming week.

The rain came too late to do very much good to the winter wheat and spring small grains. Wheat on fallow will make a fair yield but many of the plats which are growing on land cropped last year will be failures. In the date of planting test with wheat, that which was planted on October 10 and after is still green and may make a yield. That planted before October 10 has dried up until it can not make a yield. If hot weather continues harvest will no doubt start within the next ten days.

Maximum temperature 99, minimum 54; precipitation .81 inch.

DALHART:

The fore part of the week was quite warm and sultry. Very little wind accompanied the hot days. This was followed by some electrical storms, heavy winds, some hail and considerable rain. Rain was recorded on three days of the week, the first starting about 8 p.m., June 8. These rains have prevented further field work for the week. Some hard winds have blown for short durations causing some soil movement in fields where nothing could be done to prevent it due to the wetness of the soil. This blowing, however, has not done any damage since the blowing periods were short. Hail was recorded on the 9th netting .07 inch. The ground was white with hail but very little damage was done. The corn blades were split to some extent and cowpeas cut up a little but otherwise nothing was hurt.

During the first two days of the week considerable field work was accomplished. Some planting was done in the increase field and the nursery planting was put in. The field corn was all cultivated, also the first two dates of planting. The first two dates of sorghum work were thinned to stand. The remainder of the week has been spent in hoeing and cleaning up the tree and ornamental plantings. The vineyard was sprayed the first of the week in order to kill the worms that were working on the grapes. That night it rained and the weather has not permitted another spraying.

Dalhart, continued:

Considerable replanting is being done in this section of the panhandle due to the heavy rains washing soil in on crops which were already emerged. Those crops planted on sod have come through and are growing off in good shape. These continuous rains are putting the farmer behind with their work since wheat harvest is close at hand and a great deal of planting has to be done over. The wheat and rye are turning and with favorable weather the harvest is not far off.

All the plat fields were staked for plat trimming this week but plowing could not be done. This work will be started as soon as conditions will permit. The plowing of all fallows will be started as soon as the fields are dried sufficiently.

Maximum temperature 91, minimum 54; precipitation 1.34 inches.

COLBY:

The weather remained dry and the last two days of the week were hot. The temperature reached 97 degrees during the week, which is the hottest recorded to date.

Winter wheat continues about the same as was given in the previous reports. Wheat appears to be filling nicely, especially that on fallow. There are some spots on all methods that are, of course, a total failure. In general, however, the wheat holds on remarkably well.

Notes taken today, June 12, were to the effect that there would be no spring wheat, oats, and barley on the station except that grown on fallow. The cropped plats are completely burned and dried up in most cases. Corn is beginning to show the effect of the dry weather. While the corn is small it rolls and has the typical droughty "gray" appearance. Sorghums on the D. L. A. project are showing a stand except on some of the plats that are not worked previous to planting.

Sorghums for feed were listed during the week. The listing was just completed today, (Saturday). There remains to be seeded the continuous Sudan grass pasture and a border field. They will be drilled. There was sufficient moisture in the fields listed to insure germination, apparently.

Candada field peas for green manure have completely dried up. Pastures are dry and brown. Local showers continue to fall both north and south of the station.

TUCUMCARI:

Three showers the past week totaling .94 inch brought the total for the year to 11.60 inches, about twice the average for this period. May precipitation totaled 5.25 inches.

Field work has progressed well the past week, although much time was spent in replanting listed increase land which had washed out during the heavy rain of 2.42 inches, May 26. It is hoped that at last all plats and increase fields will make satisfactory stands. Heavy, beating rains have washed so seriously that increase land has in most cases been replanted once and in some cases twice. Some replanting has been done on plats, some "planting in" has been resorted to, and a few plats have been reduced in area, for such deep ditches had been made that work preparatory to leveling the plats would have torn out the rows which showed good stands.

During the week the spacing, variety, and date sorghums have been harrowed, this serving to break the crust and prevent soil blowing at a time when field work was too rushing to delay other work for cultivating. A large amount of "Scratching" has been necessary on listed increase the past two days to break the crust. Broomcorn variety and spacing plats were planted this week. Station planting is now being completed with the exception of a small amount of broadcast increase which will be drilled late, after another crop of weeds has been killed.

Wheat is ripening and that seeded early will be ready to cut within ten days. No hail has been reported for about a week and it should be time for another serious loss to occur on the plains. Cherries are ripe and have produced excellent yields.

Maximum temperature 91, minimum 56; evaporation 1.913 inches.

LAWTON:

Hot, dry weather was favorable to the harvest of small grain during the past week and that work has gone forward rapidly in this part of the state without interruption.

Harvest was completed on the station June 10. Thinning of all sorghum crops and plat trimming is pretty well completed. A good deal of cotton has been chopped and that work, together with cultivating, will be completed within a few days.

Lawton, continued:

It is now just a month since rainfall of much consequence has fallen and the surface soil is hard and dry. The second growth of alfalfa is coming on very slowly and shows an acute need of moisture. Corn has a dark, rich green color and is about shoulder high.

The maximum temperature recorded for the week was 99. Several days of strong wind movement also prevailed.

WOODWARD:

The past week has been hot and dry, though there have been showers in various sections. A severe hail was reported about 30 miles northwest.

All the wheat and rye on the D. L. A. project was harvested early in the week. Part of the plats in the effect of pasturing experiment have been harvested. The kafir, milo, sorgo, broomcorn, Sudan grass and beans on the D. L. A. project were planted Tuesday and Wednesday. Kafir which was planted Tuesday morning was up to a good stand Saturday morning. At the same time an occasional plant of milo was showing; this crop was planted Wednesday. The last date of planting of cotton was planted on the 10th. Considerable planting has been done on the Cereal project. Practically all crops which have been planted long enough to be up have been cultivated during the week.

Apparently the wheat will make some very good yields this season. That on the plats was practically ripe at the time of the last rain. When it was cut the straw seemed to be dead, and while the berries were plump they were soft enough so that there will probably be considerable shrinkage. Some of the farmers in this vicinity are estimating that they will have the best wheat crop since 1915.

The May 10 date of planting of the cotton variety test and the May 19 and 20 dates of planting have been thinned.

Maximum temperature 99, minimum 64; precipitation 0.
Evaporation 2.492 inches. Average hourly wind velocity, 7.2 miles.

NOTE:

Field men are requested to promptly return to this office, at the end of June 30, all unused transportation requests for the fiscal year 1926.

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OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

JUN 19 1926

REPORT FOR WEEK ENDING JUNE 19, 1926

HAVRE:

In contrast to the weather that has prevailed this spring, the past week was very favorable. A slow rain began falling on the night of the 14th and by the middle of the afternoon of the 15th, .87 inch was recorded. Two other small showers, bringing the total for the week to 1.09 inches, were received. This rain was quite general over Northern Montana and many localities recorded more than at the station.

All crops have responded very rapidly, with the possible exception of grain on the poorer methods that became very badly infested with Russian thistles.

Probably one-fourth of the grain seeded in this section of the state is entirely choked out with thistles. Many of the other fields, especially those seeded on fallow, show but little injury and are practically clean. The fact that they are clean is probably due to the grain getting an early start. Corn has responded very rapidly but stands may be uneven on spring plowing. Some of this seed germinated and dried out.

Mr. Louis Vinke, in charge of investigational work with cattle at the Montana Experiment Station, left the station on the 18th, after spending a week in going over the records of the winter feeding work.

Maximum temperature 75, minimum 41; precipitation 1.09 inches.

HUNTLEY:

Cool weather and numerous showers during the week have freshened up crops to some extent but the amount of moisture stored in the soil was small. However, enough rain fell to soften up the clods on recently plowed summer fallow and permit cultivation to reduce them to a more desirable surface cover.

Rye and peas for green manure were plowed under June 17. Stands of both crops were very thin and weedy and the ground plowed up extremely dry and cloddy. Small grain crops are heading on very short straw in favorable spots while in other locations the plants appear to be drying up before reaching the heading stage. Corn has resumed growth and looks more thrifty than it did a week ago. The listed corn is at present much in advance of the surface planted methods.

Maximum temperature 79, minimum 41; precipitation .73 inch.

SHERIDAN:

Light rains, totaling .65 inch of precipitation, fell on the evenings of the 12th and 13th. The weather since has been cool and cloudy with light showers. Crops have recovered considerably from the effects of the hot weather of last week. Oats in the rotations are practically headed, and while the stand on many plats is thin and the growth short, the general condition of the crop is much better than a week ago. Spring wheat in the rotations is just beginning to head. Some early seeded plats of Marquis are fully headed. Some of these latter plats show considerable effect from firing during the hot weather. Corn made a good growth in spite of the cool weather. Flax, where in rotation with other crops is making a good growth, and except where manure is applied in the rotation, is keeping well ahead of weeds.

Progress with haying has been slow. At no time during the week has it been possible to secure dry weights on plats. The remainder of the alfalfa for hay and some crested wheat grass has been cut. Plowing for fallow has been completed. Some breaking has been done on the new land recently purchased, adjoining the rotation field.

Maximum temperature 79, minimum 37; precipitation .72 inch.

DICKINSON:

The week has been cool and cloudy much of the time with light rains on four days. Small grains have made good progress but corn looks yellow as a result of the cloudy weather. The rains appear to have been of little help to the hay crop. Alfalfa and sweet clover are past the stage for best quality of hay but cutting is being delayed for more settled weather.

Sweet clover and rye were turned under on the green manure rotations. Both crops were rather thin on these plats and the rye only about two feet high.

Most of the week was spent in cleaning up weeds about the station. Rotation alleys were cultivated and the brome grass in the roadways clipped. Most all of the corn was harrowed for the third time.

Maximum temperature 67, minimum 42; precipitation .66 inch.

Precipitation to date in June, 1.40 inches.

MANDAN:

Agronomy

The past week has been cool and cloudy, with four light showers. The wind blew hard on three or four days.

Mandan, continued:

Most of the week has been spent in cutting hay on the feed fields. Very little of the hay cut is dry enough to haul in.

The cool weather has saved the crops from drying up entirely, but there has not been enough rain to help the serious condition of the crops. Reports are to the effect that many fields of wheat are being plowed up. Corn continues to hold its own, but is not making much growth.

Maximum temperature 73, minimum 42; precipitation .46 inches.

Cooperative Grazing Experiment

It was necessary to move the cattle to another division in the rotation pasture. They had entirely cleaned up the one they were on. The division carried them only 30 days instead of the usual 45 to 50 days. Pastures are in the poorest condition they have been at this times of year since the grazing experiment started.

Arboriculture

Mr. John L. Emerson and Mr. Lewis S. Mathew, both junior students of the College of Forestry at Missoula, Montana, arrived at the station June 14, and will assist in the inspection work of shelterbelt plantings this summer. Mr. Emerson did the same work last year.

The week has been taken up with the preparation of maps and inspection sheets, and hoeing out the June crop of weeds in the shelterbelt nurseries. Germination of such seed as ash and boxelder is somewhat scattered, on account of lack of moisture and poor quality of some of the seed.

Horticulture

Most of the time during the past week has been spent in cultivating and hoeing of the orchards, gardens and nursery. Part of the groups on the grounds have also been cultivated and hoed. Weeds growing on the main roads leading to the station were sprayed with a solution of Sodium arsenite, which appears to be an effective weed killer.

A good stand of potatoes has been secured in the variety trials. Tomatoes have been staked in the acre garden. Water sprouts have been removed from trees grafted this spring. Cherry crosses have been picked in the greenhouse.

Mandan, continued:

The peonies are now at their best and are by far the most attractive blooms on the station grounds. Last year the display was very poor owing to late frosts damaging the buds.

Mr. M. L. Wilson, in charge, Division of Farm Management and Costs, Dr. D. Pasquet, Director, School of Higher Studies, Paris, France, Mr. F. J. Hopkins, Assistant Horticulturist, Foreign Seed and Plant Importation, and Dr. H. L. Walster, North Dakota Agricultural College, were visitors during the week.

BELLE FOURCHE:

Heavy rains during the week left the soil with enough available moisture to last crops for some time to come. All grains have made excellent growth and promise to make a good crop. Barley and oats are headed, and some heads are appearing on the spring and winter wheat. Corn is somewhat backward but is in a healthy condition.

The writer returned from a trip to the eastern part of the state the latter part of the week. There has been an immense amount of land broken up in the western half of the state this year, and prospects are that there will be a good crop on the newly broken land. The use of the lister in planting corn has increased a great deal the last few years. Nine-tenths of the fields observed west of the Missouri were planted with a lister.

The condition of grain crops in the eastern portion was exceedingly poor. The drought damage was so great that even the heavy rains of the last week could not be expected to cause the grain to recover. In many places the grain fields were being plowed up.

In Brookings the lawns were nearly bare and many trees were dying. Practically every white birch in the town, many of them trees over forty years old, was dead from the drought. Over three inches of rain fell at Brookings during the week. This was nearly as much as had fallen in the previous eleven months.

Maximum temperature 75, minimum 44; precipitation 2.38 inches.

ARCHER:

Beginning the afternoon of June 12 there has been almost continuous rain and hail to this date. The damage from the hail at this station, while rather severe, was not serious in that the good was greater than the damage. The greatest damage was to winter wheat which was in boot or heading. The precipitation during the afternoon of June 12 was 1.50 inches; the night of June 13, .88 and the night of June 14, .87 inch. Since then there have been a couple of light showers with mist and fog.

Archer, continued:

Considerable damage from hail was wrought in the center of the storms. The estimated damage to Cheyenne was $150,000.00 to $250,000.00.

The installation of the milking machine was completed and it is working very well. The pipe fitting in the milk house has been completed and all utensils can now be sterilized with steam.

Supt. Brandon, of the Akron Station and County Agent Vance, of Washington County, Colorado, visited the station June 14. A delegation of 300 farmers from northern Colorado, under the leadership of County Agent H. H. Simpson, visited the station June 15 and made an inspection tour.

Maximum temperature 76, minimum 39; precipitation 3.82 inches.

AKRON:

The last of the weeds were eliminated early in the week and the station is again on even terms with whatever may come along. The rotation and sheep rotation corn was cultivated for the first time early in the week. The soy bean variety experiment was seeded and preparations for seeding the bean variety early the next week were made. Much dead wood was taken from the orchards. Some time was spent in special touches in readiness for the annual picnic.

The Annual Picnic was held during the week. About the usual crowd was present, some estimating it as smaller than in former years. Professor C. R. Bray, of the Animal Husbandry Department of the State Agricultural College, was the chief speaker. Mr. David R. Thomas, of the Agricultural Branch of the Denver Civic Body, gave a short address also.

On the night of the 15th considerable hail fell with a rain of .65 of an inch which did considerable damage here on the station. About half the plums and cherries were beaten to the ground and a portion of the fruit remaining on the trees was bruised. Several unscreened window lights on the north side of the machine shed were broken. Corn and sorgo was cut badly but at the week end these two crops appear to be overcoming the damage. Small grains at or near the heading stage were damaged, some estimate as much as 50 per cent. Another rain of .38 inch was received later in the week followed by cool, cloudy weather. At the present writing, however, small grains do not seem to have recovered appreciably from their badly burned condition. Prospects are not bright for an average crop of small grains.

Maximum temperature 92, minimum 42; precipitation 1.24 inches.

NORTH PLATTE:

The long, severe drought here has finally been effectively broken. Rain has fallen on five days of the week. A downpour on Tuesday night totaled 1.65 inches and 1.89 inches on the table and bench, respectively. Heavy streams of water ran out of the canyons for the first time in several years. Considerable damage was done by soil washing.

These rains bring the totals for June to 2.81 and 3.81 inches on the table and bench, respectively, indicating that June, the first month this year, may reach its normal.

All small grain, except on a few fallow plats, was too far gone to recover. Larger fields are being plowed up for feed crops. Rotation plats are fast becoming a mass of thistles. Pastures and meadows are already showing improvement.

COLBY:

This week was different. The continued drought was broken on Monday night of this week. A rain of .88 inch fell during the night of the 14th with the bulk of the rain coming between 4:30 and 5:30 a. m. The rapidity with which the rain came caused considerable runoff so that good penetration of the moisture from this rain was not secured. Tuesday was cool and cloudy so that there was fair penetration for the nature of the rain. Tuesday night a rain of .29 inch fell as a gentle drizzle for almost the entire night. There was good penetration of this rain and no runoff. These rains were followed by another rain of .17 inch on Wednesday. The ground looked almost as wet on Thursday morning. The weather since the rains has been cool until this afternoon when the sun came out and the wind is blowing. The maximum temperature on Friday was 58 degrees. There was an extremely heavy rain in the counties east of here on Sunday, the 13th. This rain reached to within about five miles of Colby. A shower reached to Colby but was not sufficient to do any good.

Winter wheat continues to fill fine. A good quality of wheat will be secured, though the yield will be light in most cases. A field of wheat growing on summer fallowed land containing approximately 4.5 acres on the station that borders the main highway has looked especially good for the season all along. This field is given over to rate, method of seeding, and direction of seeding work. A great deal of favorable comment about this wheat has been received all season, especially as it is the only good appearing field wheat in the immediate vicinity.

Colby, continued:

Corn is growing rapidly since the rains. The last seeding of sorghums is just beginning to emerge. A field of Sudan grass for pasture was seeded on Wednesday. The last of the summer fallow ground was plowed during the week. Two-hundred bushels of corn were purchased during the week at 70 cents per bushel. At the same time 165 bushels of barley were purchased for 50 cents per bushel.

It is doubtful if there will be any wheat cut on the station the coming week. If next week is warm, some of the wheat will probably do to cut the latter part of the week. A trip taken on Thursday would indicate that there would not be sufficient barley raised in the four northwest counties in Kansas for seed another year. In most places over the same counties wheat is very poor, and the same counties will probably not produce more than half as much wheat as they did last year.

GARDEN CITY:

Low temperatures and cloudy weather have prevailed for the past three or four days. Two rains were recorded during the week. Wednesday night .10 of an inch of moisture was received and Thursday night a rain totaling 1.58 inches was recorded. Most of the moisture received came slow enough that it penetrated the soil well.

All row crops have made a good growth and are now large enough to thin. The plat ends were trimmed Thursday and thinning was to have started the following day but rain prevented.

Some plats of winter wheat will be ready to harvest within the next few days. The straw is quite short but the heads seem to be fairly well filled.

Maximum temperature 90, minimum 54; precipitation 1.68 inches.

DALHART:

The past week has been just as changeable as usual. The first of the week fair weather prevailed with plenty of wind. The fields were all well packed from rains of the previous week so that soil blowing was plentiful. The cultivators and harrow were started for protection. The weather has been cool. Thursday night the usual weekly rain was recorded which netted .80 inch at the station. The rain was lighter here than it was north and east. Two inches were recorded just east of Dalhart and four inches about 10 miles north and east. This was one of the hardest rains received for some time. Heavy winds accompanied the rain with plenty of electrical effects.

Dalhart, continued:

The fallows were plowed this week, the soil turning over in good shape. The two listed fallow plats were also worked. In order to protect the young crops from damage by soil blowing, the harrow was used to good advantage. The cultivators were used on the plats, etc., that were in need of cultivating most and the harrow on the increase fields and late plantings. The crust was so hard that the harrow left the ground in good condition for protection. Considerable thinning was done during the first four days of the week. Soil samples were taken the first of the week. The 4th date of cotton was five days late due to rains. The small grain plats were trimmed preparatory to harvesting. The wheat and rye will be harvested just as soon as conditions will permit. These are ripening rapidly but are standing up wonderfully well considering the weather. There has been no lodging as yet.

Some of the lister planting was replanted this week for the 3rd time. Excellent stands were secured on all plantings made with the 2-row planters where furrow openers were used. Forrow openers were used on all the plantings except listing.

The adult moths of the western army cutworm have been very numerous and annoying the past three weeks. We had good success eliminating them by leaving lights burning all night at different places, suspended over tubs of water having a light covering of kerosene. This method thinned the moths to such an extent that very few can be found now.

Maximum temperature 91, minimum 52; precipitation 1.16 inches.

TUCUMCARI:

Early wheat in eastern New Mexico is ready for harvest and no doubt harvest will start the first of the week if the weather is favorable. Rain this date prevented cutting the station plats today. Occasional hail storms continue to injure the plains wheat crop, and estimates of the damage run from 5% to 15%. Early seeded wheat on well prepared ground, uninjured by hail, is expected to average over 20 bushels, but late seedings, hail injury, and thin stands will no doubt bring the county average for all wheat down to about 15 bushels.

During the week one cultivator was kept in the field steadily, while a large amount of increase land and the north field plats were harrowed. Stands, after extensive replanting, are normally good on all crops except about 10 acres increase listed milo. Broomcorn plats planted the 12th were emerging by the 16th and good stands were noted the 17th.

Tucumcari, continued:

Farmers have at last succeeded in most cases in securing fair stands of the sorghums, after replanting the majority of listed land at least once. Nearly all rains of the past month have been accompanied by high wind and have fallen suddenly, causing an unusual amount of packing, washing, and burying. Fields lying on a gentle slope have been replanted three times, in some cases.

Maximum temperature 94, minimum 56; precipitation .67 inch.
Evaporation 2.291 inches. Average hourly wind velocity, 5.4 miles.

BIG SPRING:

The temperature during the first four days of this week was exceptionally hot, the temperature registering between 102 and 107 each day. Relief from this hot spell came through a rain of 1.14 inches on the night of June 17. This rain fell slowly and soaked things up in good shape. This was followed the next morning by another rain which assumed almost the proportions of a cloud burst. At this time 3.22 inches of rain fell in less than an hour and a half. This rain came so fast that some of the fields were washed very badly. The grounds in front of the station buildings were under water for several hours.

The third annual Feeders' Day Meeting was held on June 8, which marked the close of the present feeding tests. Among those on the program were representatives of the commission firms and packers, also representatives of the Bureau of Animal Industry and Texas A. & M. A very good crowd was in attendance and all seemed very much interested in the work.

The June 15 date of seeding was made on time, but had to be planted dry. Although these plats will have to be scratched, they should come up to good stands now. Other work this week has consisted mainly of trimming plats and thinning.

Station visitors during the past two weeks were V. V. Parr, of the Bureau of Animal Industry; Messrs. J. M. Jones and G. M. Barnes, of Texas A. & M., and John Burns, Secretary of the Texas Hereford Breeders Association.

Maximum temperature 107, minimum 61; precipitation 4.36 inches.

LAWTON:

Strong, parching winds and maximum temperatures as high as 104, early in the week, were followed by daily threats of rain, that finally resulted only in a gentle little shower of .13 inch. However, decidedly cooler temperatures, the minimum finally dropping to 59, temporarily relieved punishment to growing crops and other vegetation.

Row crops are making some growth but soil moisture is largely depleted in this particular section of the state. Weather reports from many surrounding counties indicate beneficial rains in many places. Grasses of all kinds are getting dry and corn is tasseling as usual under adverse climatic conditions.

Thinning and cultivating of all row crops was completed during the week and preparations for threshing are finished. This work will go forward at once.

A few reports of grasshopper damage have come in from one corner of the county and worms are infesting the young cotton fields in some places.

Threshing of small grain is rapidly progressing throughout the county. In a few instances wheat yields of 30 bushels per acre are claimed and several yields of 20 bushels are reported. Although millers complain of yellow berry the grain is unusually good in quality, testing 60 to 63 pounds per bushel.

The June 1 date seedings were made as planned but hot, dry weather and rapidly drying soil will hardly permit of satisfactory germination.

Maximum temperature 104; precipitation .18 inchs.

WOODWARD:

The temperature has varied from 55 to 106 degrees. The day that it reached 106 the wind velocity for the 24 hours averaged 13.8 miles per hour and the evaporation was .56 inch.

Thursday night a good rain fell, totaling 1.05 inches. There was little runoff from the fields. Friday and Saturday remained cool. This will be of great benefit to the row crops, but of course temporarily stopped harvest, which was in full swing.

Work during the week has consisted of cultivating crops that are up, planting, picking of fruit, spraying, etc. The apples, plums and grapes were sprayed, the latter to control grape leaf hoppers and root worm. More cherries and the first blackberries, dewberries and raspberries have been picked. Grapes have set a considerably better crop than was expected immediately after the freeze in March. Cherries probably have the best crop that they have had to date. Only a few varieties of plums are bearing, and there are practically no peaches. Jujubes are blooming at present.

Woodward, continued:

The cowpea variety test and June 15 date of corn were planted during the week. Single rows of 29 of the recent introductions were planted. Thirty-two of these were grown last year in rod rows. All but three varieties produced seed.

The installation of the floor and fixtures in the Dairy barn is about completed. Some alfalfa hay has been put up.

Maximum temperature 106, minimum 55; precipitation 1.12 inches. Evaporation 2.96 inches. Average hourly wind velocity, 8.9 miles.

NOTE:

Attention is called to the following memorandum from the Chief, Division of Purchase, Sales and Traffic:

"MEMORANDUM FOR CHIEFS OF BUREAUS, DIVISIONS, AND OFFICES

It has been the practice of the Division of Purchase, Sales, and Traffic to supply penalty envelopes to prospective bidders for their use in submitting proposals for supplies, equipment, etc., but this has been discontinued at the suggestion of the Third Assistant Postmaster General, who holds that the procedure is in contravention of the postal laws and regulations. All field officers of the Department who may have occasion to call for proposals should at once be advised of this ruling and instructed to conform thereto.

Very truly yours,

(Signed) Alex McC. Ashley

Chief of Division"

June 23, 1926.

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BUREAU OF PLANT INDUSTRY

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

JUN 26 1926

REPORT FOR WEEK ENDING JUNE 26, 1926.

HAVRE:

While only .01 inch of rain was recorded for the week, crop conditions were very favorable. Maximum temperatures were low and evaporation quite low for this time of the year, with skies partly cloudy most of the time. Temperatures were probably a little low for the most rapid growth of corn but all other crops made rapid development.

The first date of winter wheat is in the dough stage. Spring rye passed the bloom and winter rye is starting to turn. The first date of spring wheat is well headed, with the ordinary date of seeding in the boot. On both spring and fall plowing, quite a lot of late emergence has just taken place. This grain was seeded the latter part of April and the first part of May, and this condition will result in some very ununiform plats on both spring and fall plowing. We have never had such contrast in favor of fallow and corn ground as is now apparent.

Range conditions in this section of the state also improved very materially. The first cutting of alfalfa was stacked after being in the shock for over two weeks.

Mr. Thomas Killand, from Mandan, was at the station three days preparing a sketch of the buildings and present plantings, also preparing a permanent landscape plan.

Mr. M. L. Wilson also spent one-half a day at the station on the 25th.

Maximum temperature 82, minimum 43; precipitation .01 inch.

JUDITH BASIN:

The drought which prevailed during the latter part of May and the fore part of June was terminated by rains on June 13, 14, and 15 which totaled .55 inch precipitation. Precipitation was recorded every day except one from June 12 to June 22. A total of 1.39 inches of precipitation occurred during the four days, June 18 to 21, and the maximum precipitation for one day was .75 inch on June 20. With the exception of the past two days which have been quite warm, cool, cloudy weather has prevailed throughout the two week period. Snow fell June 20 and freezing weather killed the tips of the leaves of corn, beans and tomatoes.

Judith Basin, continued:

The timely rains revived all crops. Most of the winter wheat is headed but the heads are relatively short, due to the effect of the drought and hot winds. Winter rye is blossoming, and all the spring grains have made a rapid growth. The new growth of alfalfa is well started, and crested wheatgrass is nearly ready to cut for hay.

Work has been devoted to building corral fences, hauling lumber and gravel, and pouring the concrete foundation for the dairy barn addition. Most of the alfalfa hay was stacked during the past week and about one more day will be required to complete hauling hay to the barns. All corn plats on the rotations, conifer blocks, field beans, and vegetable garden were cultivated. Summer fallowed fields were also cultivated.

Visitors during the week were Mr. L. K. Vinke, of the Montana Experiment Station, and Mr. Thomas K. Killand, of the Northern Great Plains Field Station.

Maximum temperature 80, minimum 32; precipitation 1.95 inches.

HUNTLEY:

Cooler weather has prevailed during the week than is usually experienced at this time of year. The lower temperatures and light showers received have combined to retard the drying up of the grain crops and have put new life into the corn, bean and similar row plantings. Weeds have taken advantage of the more favorable growing conditions and have gained the ascendency over small grains in plats where stands were thin and growth was severely checked by drought. Row crops, although cultivated twice so far, are also more or less ragged with weeds, which will require hand hoeing to eliminate.

Haying operations were completed on the Dry-Land project yesterday. Yields were generally very light but the quality of the hay was good in most cases.

The grazing season for fall pigs on alfalfa and bromegrass pastures was closed June 23, and the animals were sent to market. The gains made on pasture with a 3% supplementary grain ration averaged 1.51 pounds per day for the hogs on alfalfa pasture during the 41-day season. The average grain consumption was at the rate of about 3.5 pounds of corn to a pound of gain. It required about 4.0 pounds of grain to make a pound of gain with the hogs on bromegrass pasture during the same period, the average daily gain being but 1.23 pounds. The average weight of all the animals at the conclusion of the test was 207 pounds.

Maximum temperature 87, minimum 38; precipitation .12 inch.

SHERIDAN:

The most of the week was fairly cool and partially cloudy the most of the time, fairly high temperatures prevailing only yesterday and today (25th and 26th), but heavy winds prevailed over the first of the week. Crop prospects declined steadily throughout the week in spite of the fairly cool weather. Firing was noticeable with winter wheat by the middle of the week, and all grain is firing more or less now except some of the later seeded plats. Oats on check plats in the northeast corner of the rotation field and in Rotations 68 and 69 would make but little crop now even with a good supply of moisture from now on. Just at the present time flax in Rotations 35 and 247 seem to show the best prospects of a crop of anything in the rotation field, except corn and sorgo, both of which are in good condition. The condition of grain on fallow still remains generally fair.

Haying was completed on the station except for securing dry weights of the alfalfa varieties in rows and a few plats of sweet clover. Thinning of corn in the rotations and the varieties has been completed.

Crop conditions over this section are quite spotted. The immediate area about the station seems to be about as dry as anywhere.
Maximum temperature 83, minimum 34; precipitation .13 inch.
Light frost was reported in some places on the morning of the 21st.

DICKINSON:

The fore part of the week was cool with three light showers. The latter part was hot and grains were beginning to wilt in the heat of the day.

Early grains are starting to head rather short and spotted. Most all methods are weedy with more mustard in evidence than usual.

Alfalfa and sweet clover were cut on the rotations and in the variety tests and hay patches. Alfalfa was only 6-to 8 inches high. Yields of alfalfa are the lightest since 1921.

Corn and flax are clean and making a good growth, and crops are cleaner than those seeded earlier.
Maximum temperature 85, minimum 41; precipitation .30 inch.

MANDAN:

Agronomy

The past week was very similar to the preceding one. It was cool and cloudy with frequent light showers.

Cutting of hay in the feed fields was completed, and most of it has been hauled in. Hay from the forage crop plats has also been hauled in. The frequent showers have made it difficult to get the hay dry enough for hauling. The yield is light on all fields and plats. The second cultivation of corn has been started.

While there has been a number of light showers, there has not been enough rain to help the small grain much. The heaviest rain so far this month was .35 of an inch. There was a shower nearly every day during the past week. One night .60 inch fell at the pasture, and .18 inch at the station.

There will be very little small grain produced on the station. Wheat on fallow, and some of that on corn ground, will make a fair crop if it rains enough. Wheat over the country is about gone, except in a few spots. Corn is still in good condition and is making a fair growth.

Maximum temperature 80, minimum 41; precipitation .59 inch.
Total rainfall for the month to date, 1.17 inches in 11 showers.

Cooperative Grazing Experiment

A Farmer Picnic was held at the pasture and station on June 23. About 125 were present. A tour was made of the pastures and lunch was served at the corrals by the Mandan Chamber of Commerce. A short program was held in one of the sheds.

Prof. Shepperd and Dr. McMahon, of the Fargo Agricultural College, and Mr. Evan Hall, of the Milwaukee Railroad, were present at the picnic. The crowd was just the right size to conduct over the pastures to the best advantage.

The picnic was put on by the Agricultural college in cooperation with the County Agents of Morton and Burleigh Counties, and the Mandan Station.

The latter part of the afternoon was spent at the Mandan Station going over the different projects.

The pastures are in very poor condition. The number of cattle will, no doubt, have to be reduced in the rotation pasture in order to complete the season on the pasture.

Horticulture

Mandan, continued:

Juneberries are now ripe and the breeding blocks have been gone through for selection purposes. Several bushes have been marked for further observation. A few strawberries have been picked, but the crop is very poor this year. Currants are starting to ripen.

Dead wood has been removed from trees in the orchards and grounds. It was also necessary to remove a considerable number of blighted limbs from apple and crab trees.

Alaska peas are now being picked in the acre garden. The crop is only fair, as regards yields and quality.

Other work included mowing the lawns, tieing up tomatoes and hoeing in orchard, garden and grounds.

Arboriculture

Work on the preparation of inspection sheets and maps is now nearly finished. The inspectors will start out on July 1. Mr. E. J. Goerge will cover Wyoming and South Dakota; Messrs. J. L. Emerson, and Lewis Matthew, will cover northern and western Montana, and North Dakota and eastern Montana, respectively.

Visitors of the week included Professor Sheppard and Dr. McMahon, of the North Dakota Agricultural College; Mr. Evan Hall, Agricultural Development Agent, Milwaukee Railroad; Mr. A. R. Miessen, County Agricultural Agent, Burleigh County, N. Dak., Prof. F. D. Gardner, Head Agricultural Department, Pennsylvania State College, and Mr. Boyle, Flax Disease Investigations, North Dakota Agricultural College.

BELLE FOURCHE:

A severe wind on the night of June 20 damaged the corn to some extent but did not injure other crops. The leaves of corn plats in exposed places were whipped almost to pieces. However, by the end of the week all plats had recovered and were growing vigorously.

All grain plats are now headed out. No drought injury has been experienced as yet and crop prospects are excellent. There is no great amount of reserve moisture in the soil and more rain will be necessary if a high yield is to be obtained, though a fair crop seems assured.

Bellefourche, continued:

The hay crops were cut during the week. Yields will be fair but not high. The yield of sweet clover was reduced by winterkilling. Established alfalfa will produce a higher yield than any of the other hay crops.

The temperatures for the week were low. Rain threatened every day but the rain did not materialize. The maximum for the week was 75, minimum 44; precipitation, Trace. The precipitation for June to date is 2.70 inches.

ARDMORE:

The rains reported a week ago, amounting to 1.30 inches, were of material benefit to all crops. Small grain has held out remarkably well considering the long continued drought. Barley is ripening very rapidly. This crop is very short and will have to be harvested with the combine to save the grain. The yield will be light.

Fields of alfalfa were harvested during the week. The quality of the hay was excellent, but the yield did not average one-fourth ton per acre.

There was slight damage by hail to all crops on the 20th.

Native pastures are in very poor condition. The native vegetation made very little growth early in the season and is now at a complete standstill. Cultivated pastures are making no growth at all, with the exception of sweet clover, which the dairy cows have consistently refused to eat.

The Farm Boys' and Girls' Camp will be held at the station July 6 to 10, inclusive. The annual Farmers' Picnic will be held on July 10.

Official visitors during the week were Messrs E. J. Petry, of the Barberry Eradication Division, Paul Gorlough, of the Agricultural Extension Service, Columbus, Ohio, and N. E. Shaw, Ohio Editor, National Stockman and Farmer, Columbus, Ohio.

Maximum temperature 87, minimum 41; precipitation .11 inch.

ARCHER:

The weather was rather cool during the fore part of the week but it is becoming warmer. The outstanding weather event of the week was the very heavy wind on Sunday, June 20. The average velocity from 7 a.m. until 5:30 p.m. was 24-2/3 miles per hour. This did as much or probably more damage than the hail storms.

Archer, continued:

A 70-acre field of corn on the Hereford Ranch was almost completely blown out. Corn and potatoes were especially injured by soil blowing and when examined Monday gave the appearance of having been frosted. Some injury to the winter wheat was caused by the bending over of the hail injured culms.

The work at the station has consisted of the lining of roadways, cultivation of sunflowers and trees and the reseeding of millet, flax, beans and the late seedings of sunflowers. On this date the millet field south of the farmstead is being duckfooted and reseeded. The millet was in the process of emerging when the hail storms occurred.

On June 23 a field day for the farmers of Laramie County was held. About 100 farmers made the inspection tour. Interest seems to be increasing with regards to experimental work.

Maximum temperature 76, minimum 34; precipitation .18 inch.

AKRON:

The week has been favorable for field work. All corn plantings were cultivated. All sorgo and sorghum plantings were harrowed and the rotation plats later cultivated. The forage variety plats were trimmed and the roadways duckfooted. The forage variety fallow land was duckfooted. The bean variety experiment and the bean nursery were seeded. The cereal small grain nursery was weeded and the alleyways cleaned out. The rotation fallow and green manure rye plats were spring tooth harrowed. The rate and spacing corn was thinned to definite stands. The green manure pea plats, Plat O of the M-F series, sod plats of rotations 31, 32, 41, and 42 were plowed, packed and spike-tooth harrowed this week end The peas stood about 10-inches high on Plat O of the M-F series. There was an emerged stand of sweet clover on Rotations 31 and 32 and an emerged stand of alfalfa on Rotation 42. There was no brome to be found on Rotation 41.

Winter wheat, generally speaking, has not recovered since the rains two weeks past. Hail injury appears to be from 33 to 50 per cent. Of the heads remaining, fully half are white. Wheat in most cases promises about 3 to possibly 5 bushels per acre. Had it not hailed and had not the drought killed so many of the heads, the head covering in most cases is heavy enough to yield from 10 to 15 bushels per acre. All crops have recovered from the hail injury and are making satisfactory growth. Of the small grain crops there is little if any difference to be noted on the rotation block. The rotation block looks even more desolate than last year when fallow preparation stood out in marked contrast.

Akron, continued:

Professor Alvin Kezer, Agronomist of the State College, and Doctor C. R. Ball, Chief of the Cereal Office, were visitors on Wednesday. Mr. E. J. Maynard is here today, June 26, in the interest of the Sheep Rotation work.

Maximum temperature 84, minimum 41; precipitation .12 inch.

NORTH PLATTE:

The week has been cool with several light showers. The second crop of alfalfa is making a splendid growth. Pastures and meadows are coming out in good shape since the rains of last week. Corn is being retarded by low temperatures. Some of the spring grain plats which appeared to be almost completely dead before the rains are putting out scattering heads from late tillers.

A small crowd attended the annual Visitors Day on June 23. Two speakers from the State Extension Service were present. The chief address was given by Mr. H. D. Lute, former Secretary of the Nebraska Farm Bureau. About 40 cars made the tour of inspection of the station. Much interest was shown in the pump irrigation plant, which this year with the fourth well attached and electric power is pumping 1400 to 1600 gallons per minute.

COLBY:

No moisture of consequence fell during the week. The pastures and weeds are showing the effect of dry soil to almost the same extent as they did previous to the rain of ten days ago. The corn has not suffered from moisture since the rain however.

Harvesting of winter wheat started on the station this afternoon. The straw is a golden color but in many heads the kernels are soft being just past the hard dough stage. A good quality of grain is expected. Straw of the winter wheat is very short except on fallow and binding is almost out of the question. The straw of the wheat on fallow is short but a fair bundle is being secured.

Spring wheat, oats, and barley are not going to make anything except on fallow. The balance burned quite badly early. One plat of oats, other than fallow, that on Rotation 2 may make some oats. The same is true of the spring wheat. It is planned to mow all of the spring grain plats as soon as the winter wheat is bound. It will be necessary to have a field of wheat on the station headed as it is too short to bind.

Colby, continued:

Corn has a good color and has grown some during the week. Corn is not as far advanced as we would like to see it and hardly as far along as normally at this time of the year. The surface planted corn plats on the project were cultivated during the week and the listed plats were throwed in with the weedor. The rest of the corn on the station was throwed out and harrowed during the week. The surface planted sorghum plats on the project were cultivated during the week and the listed plats were throwed out. Also the variety field was throwed out. Although a thick crust formed on the ground after the rain of the previous week, good stands of sorghums have been secured on the listed sorghums. This gives representative stands on all of the project plats. On some of the plats, especially MC-F, and on Rotations 505 and 510, no germination was secured before the rain.

All summer tilled plats were spring toothed during the week. Also all roads and alleys and the orchard were spring toothed.

Until today the temperatures have been quite cool for the time of the year.

GARDEN CITY:

A hail storm the night of June 24 did considerable damage to crops on the station. Winter wheat on the dry land project suffered a damage varying from 25 to 35 per cent. Most of the wheat was already so poor that the hail damage would not amount to a great deal in bushels of grain. Small sorghums were damaged somewhat by the hail, but have recovered. Barley and oats on the state project were found to be damaged much more than was the wheat on the dry land project. Some plats of barley were damaged 80 per cent.

Winter wheat was harvested yesterday and today. Only ten plats of the thirty were tall enough to be harvested with the binder. The remaining plats were cut with a mower this morning.

All sorghum and corn plats were thinned during the early part of the week. Very good stands were secured on all row crops this year. Both corn and sorghums are making a rapid growth.

Dr. C. R. Ball, Professor R. I. Throckmorton, Supt. F. A. Wagner and the writer made an auto trip to Ulysess, Grant County, last Sunday and inspected the large winter wheat acreage in that part of the state. Wheat in that section is especially good this year. Several fields were seen that will no doubt yield twenty bushels to the acre or more. The good wheat in that section is no doubt due to the large amount of fall moisture received last year.

Maximum temperature 90, minimum 49; precipitation .16 inch.

DALHART:

The usual run of weather has prevailed over this section during the past week. Only three showers were recorded, mostly light ones ranging from .21 to .34 inch. The first one was recorded last Saturday night, amounting to .23 inch, which did not delay field work. By Monday the fields were in shape to work. One rain was accompanied by an unusually heavy wind and some hail. The hail at the station was just sufficient to tell that it was hailing but in a few localities some damage was done. Around Tyrone, Oklahoma, just northeast of Dalhart, a strip three miles wide was hailed out just as the wheat was ready to harvest.

The small grains at the station were harvested the first of the week. This included winter wheat and rye. The oats are just beginning to turn and will be harvested later. The wheat and rye will make an unusually large yield but the oats will not make much. The variety peanuts were cultivated and fenced against rabbits this week. The rabbits were working on them at the time of fencing. Poison grain has been put out several times but rains have fallen so often that no results were obtained.

The cultivators were kept busy for the first four days of the week and covered a great deal of ground. All the D. L. A. project was covered as well as all other plantings except the cereal and forage varieties, dates, etc. The dates and varieties will come next. Thinning is all completed except the cereal and forage varieties and the two late dates, one of which is not yet planted. Thinning will be started on this block the first of the week. Plats N and O, milo and kafir fallow methods, were plowed this week. This finished the plowing of fallows except for winter wheat.

Since the rain of Thursday night the fields have been too wet to work. The time was spent in hoeing weeds in the vineyard, tree plantings and ornamentals. Time was not lost on account of rains because these places were needing hoeing and it could not have been done at this time except for delay of field work. Today will about clean up all of this hoeing that needs attention at this time.

Maximum temperature 89, minimum 49; precipitation .77 inch.

TUCUMCARI:

Wheat harvest has begun in this locality, and next week the work should be at its height. All station wheat and rye plats, as well as two small increase areas of wheat, were harvested this week. Yields will be unusually high.

Tucumcari, continued:

During the week practically all plats were cultivated, fallows were worked, a large amount of increase was knifed, and twenty acres of listed increase land were replanted for the last time, it is hoped. Wind following the shower of a week ago seriously injured cowpeas and some other crops, but harrowing and cultivating on Monday stopped the blowing as soon as possible. Fortunately, no thinning had been done. Nearly all plats were injured enough to have made thin stands had they been thinned, but it is very possible that nearly all plats will show enough survival to result in satisfactory stands and to permit of a nominal amount of thinning.

Some gravel for the bunk house was hauled and a small amount of weed mowing, hoeing, and cultivation of tree rows performed. This is the first week in a month that station work has not been retarded by rain or wind. Next week good progress should be made in thinning.

Maximum temperature 93, minimum 51; precipitation .26 inch.
Evaporation, 2.199 inches. Average hourly wind velocity, 5.7 miles.

BIG SPRING:

Weather during the past week has been ideal for all crops with the result that they have made a very rapid growth. Fetereta and milo of the first date of seeding are heading, and the pr. 15 date of Sudan grass will be ready to cut within a few days.

Parts of several plats were either badly washed or else covered with sand as a result of the downpour last week. Considerable work was necessary to get some of them straightened up again.

The work this week has consisted mainly of thinning cotton and sorghums, and cultivating them. Shingling of the office building was completed this week.

Maximum temperature 97, minimum 66; precipitation .01 inch.

LAWTON:

A cool wind from the northeast throughout the week and a rain of one-half inch relieved the distress of growing crops. Cool nights, however, have held the cotton in check and growth has been very slow. Grasshoppers have also worked on the plants enough to give the crop a rather ragged appearance. Chinch bug damage is showing up in a good deal of the grain sorghum project. Yellow basal leaves are very noticeable in many of the plats.

Lawton, continued:

Threshing of all experimental grain was completed with the exception of 30 plats of oats in the rate and date project. In addition to this about 10 acres of oats grown for feed remains to be threshed.

Yields of wheat ranged from 20 to 31½ bushels per acre. A rough guess would place the general average at about 25 bushels. The test per bushel runs from 61 to 62. Oats yields varied rather widely.

Mr. L. F.Locke and Mr. Geo. C. Husmann, of the Office of Horticultural Investigations, visited the station on the 26th.

WOODWARD:

The weather during the past week has been rather temperate and pleasant for the most part, with only one rather hod and windy day, Sunday, the 20th. We received a nice gentle rainfall of .75 inch on the night of the 23rd and it has been cool and partly cloudy during every day since that date.

Harvesting of wheat in this vicinity is almost finished. Considerably more harvesting than usual was done by combine machines, and reports are to the effect that wheat is yielding several bushels more per acre than was expected and is of very good quality.

Work at the station for the week consisted of cultivating row crops, putting up alfalfa hay, dusting grape vineyard with insecticides, picking berries and cherries, and thinning row crops on plats.

Mr. Geo. C. Husmann, Pomologist from Washington, D. C., was a visitor at the station during the week. He and Mr. L. F. Locke, of this station, left yesterday morning on an inspection trip of a few days to the southeastern part of the state.

Maximum temperature 95, minimum 55; precipitation .78 inch.
Evaporation 2.078 inches. Average hourly wind velocity 6.5 miles.